

**Notice of Allowability**

Application No.

09/709,502

Applicant(s)

LIU, YU-JIH

Examiner

Thien D. Tran

Art Unit

2665

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/06/2005.
2. ☒ The allowed claim(s) is/are 1-68.
3. ☒ The drawings filed on 13 November 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

## **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance:

Regarding claims 1, 16 the prior arts fail to teach or fairly suggest a communication network including a plurality of communication units, wherein at least one of those units is designated as a member unit for transmitting and receiving message and at least one of those units is designated as a routing unit for routing the messages from the member unit, a communication unit to transmit and receive message within the network comprising:

a designation module to designate the communication as the routing unit in response to determining that the communication unit communicates with at least one neighboring unit that is isolated from communications with remaining neighboring units of the communication unit, wherein the communication unit designation as the routing unit is fixed for routing subsequent network messages, in combination with other limitations as specified in the independent claims 1 and 16.

Regarding claims 30, 33, 36 the prior arts fail to teach or fairly suggest a communication network comprising:

a configuration module to determine a status of a communication unit as a routing unit for routing network traffic or as a member unit of a corresponding routing unit in accordance with information contained within received unit status message, wherein the communication unit status as the routing unit is fixed for routing subsequent

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network message and re-evaluated in response to changes in network connectivity, in combination with other limitation as specified in the independent claims 30, 33, 36.

Regarding claim 45, the prior arts fail to teach or fairly suggest a communication network including a plurality of communication units forming a first network tier to transmit and receive message within the network, wherein at least one of the communication units is designated as a routing unit to form a second network tier to route network traffic and at least one of the designated routing units is designated as a transmission routing unit to form a third network tier to transmit network information throughout the second and third network tiers, a method of configuring the network including:

determining a status of each communication unit as the transmission routing unit to transmit the network information throughout the second and third network tiers in response to that communication unit being designated as the routing unit, wherein the communication unit status as a transmission routing unit is fixed for flooding subsequent network connectivity message, in combination with other limitations as specified in the independent claim 45.

Regarding claims 54, 59, 64 the prior arts fail to teach or fairly suggest a communication network including a plurality of communication units, wherein at least one of those units is designated as a member unit for transmitting and receiving message and at least one of those units is designated as a relay unit for transferring the messages from the member unit, a communication unit to transmit and receive message within the network comprising:

a designation module to designate the communication unit as the relay unit based on a examination and in response to determining that at least one neighboring communication unit is required to utilize the communication unit to communicate with network communication units that are outside the range of and greater than one hop away from the neighboring communication unit, wherein the communication unit designation as the relay unit is fixed for transferring subsequent network messages, in combination with other limitation as specified in the independent claims 54, 59, 64.

### ***Conclusion***

2. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thien Tran whose telephone number is (571) 272-3156. The examiner can normally be reached on Monday-Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

Patent Examiner

Thien Tran

**DUCHO**  
**PRIMARY EXAMINER**

*Ducho*  
8-5-05